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PARELEPHAS FLORIDANUS FROM THE UPPER PLEISTOCENE OF FLORIDA COMPARED WITH *P. JEFFERSONII*

BY HENRY FAIRFIELD OSBORN

The fossil mammoths hitherto discovered in Florida have recently been determined by Osborn as belonging either to *Archidiskodon imperator*, which is relatively rare, or to the typical *Parelephas columbi*. The present description relates to a new Upper Pleistocene stage of *Parelephas* represented by the remains of seven individuals varying in sex, in size and in age but all distinguished by a ridge plate formula, M 3 $\frac{22+}{21+}$, as compared with the typical *Parelephas columbi*, M 3 $\frac{19}{16+}$, or with *A. imperator*, M 3 $\frac{18+}{19+}$. The type and paratype skulls (Fig. 2) indicate animals of very large size with crania and tusks exceeding in size and proportions those of any *Parelephas* hitherto discovered, excepting perhaps the "Franklin County Mammoth," *P. jeffersonii*, Nebraska Museum 1–4–15.

This fine type collection is a gift of Mr. Walter W. Holmes of St. Petersburg, Florida, who with enthusiasm and generosity has been promoting the American Museum explorations in Florida since the year 1923. The deposit near Bradenton, Florida, yielding the type, paratype and other specimens was found in February of 1929 by Mr. J. E. Moore of Sarasota, Florida, who discovered the palate of the specimen now known as Amer. Mus. 26821 protruding from the side of the bank of a drainage canal. This deposit, composed chiefly of fine white river sand and black soil, was thoroughly worked by our collector, Mr. Carl Sorensen, during the period March 2 to April 2, 1929, where he recovered the remains of at least seven individual elephants. The whole deposit is 27 feet broad and 10 feet deep, the fine white river sand filling the interstices of the more or less broken crania. All the specimens have been fractured to a greater or less degree, transported a considerable distance, and collected in what may have been a deep marginal pool of a low gradient river.

Seven individuals, including type and paratype, are represented by parts of crania, jaws and the included grinding teeth. The principal dental

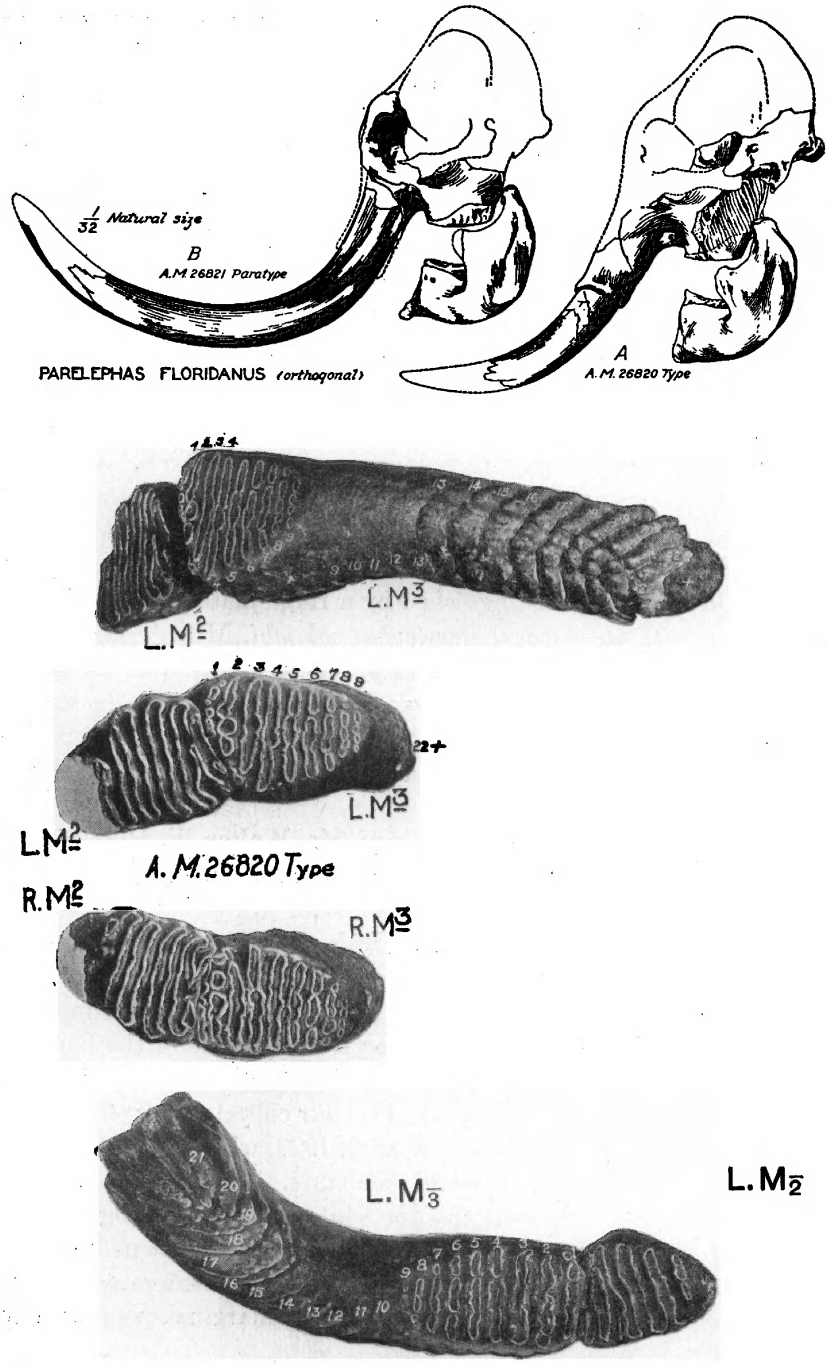

Fig. 1. Original type and paratype figures of *Parelephas floridanus* (Amer. Mus. 26820, 26821). Crania one thirty-second natural size; type dentition one-sixth natural size; paratype, *B*, reversed in drawing. After Osborn, Amer. Mus. Nov. No. 393, December 24 1929, page 19.

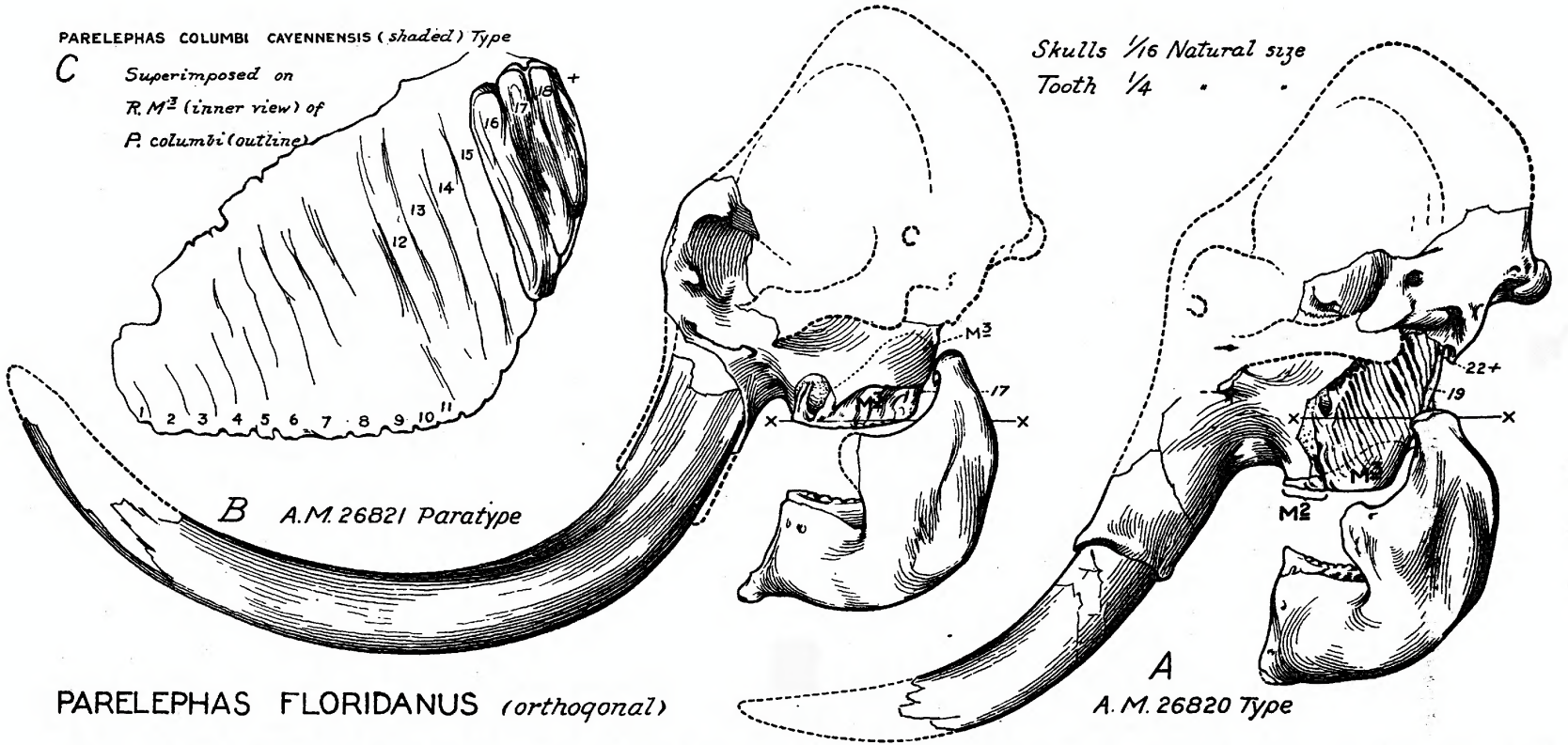

Fig. 2. Type (Amer. Mus. 26820) and paratype (Amer. Mus. 26821) crania and jaws of *Parelephas floridanus*, one-sixteenth natural size; compared with type (*C*) of *Parelephas columbi cayennensis*, one-fourth natural size.

The type (*A*) is a middle-aged adult exhibiting M^2 still in use and M^3 just coming into function; the line, x——x, indicates the occlusal level of the molar crown in the aged paratype (*B*) in which the tusks attain full length.

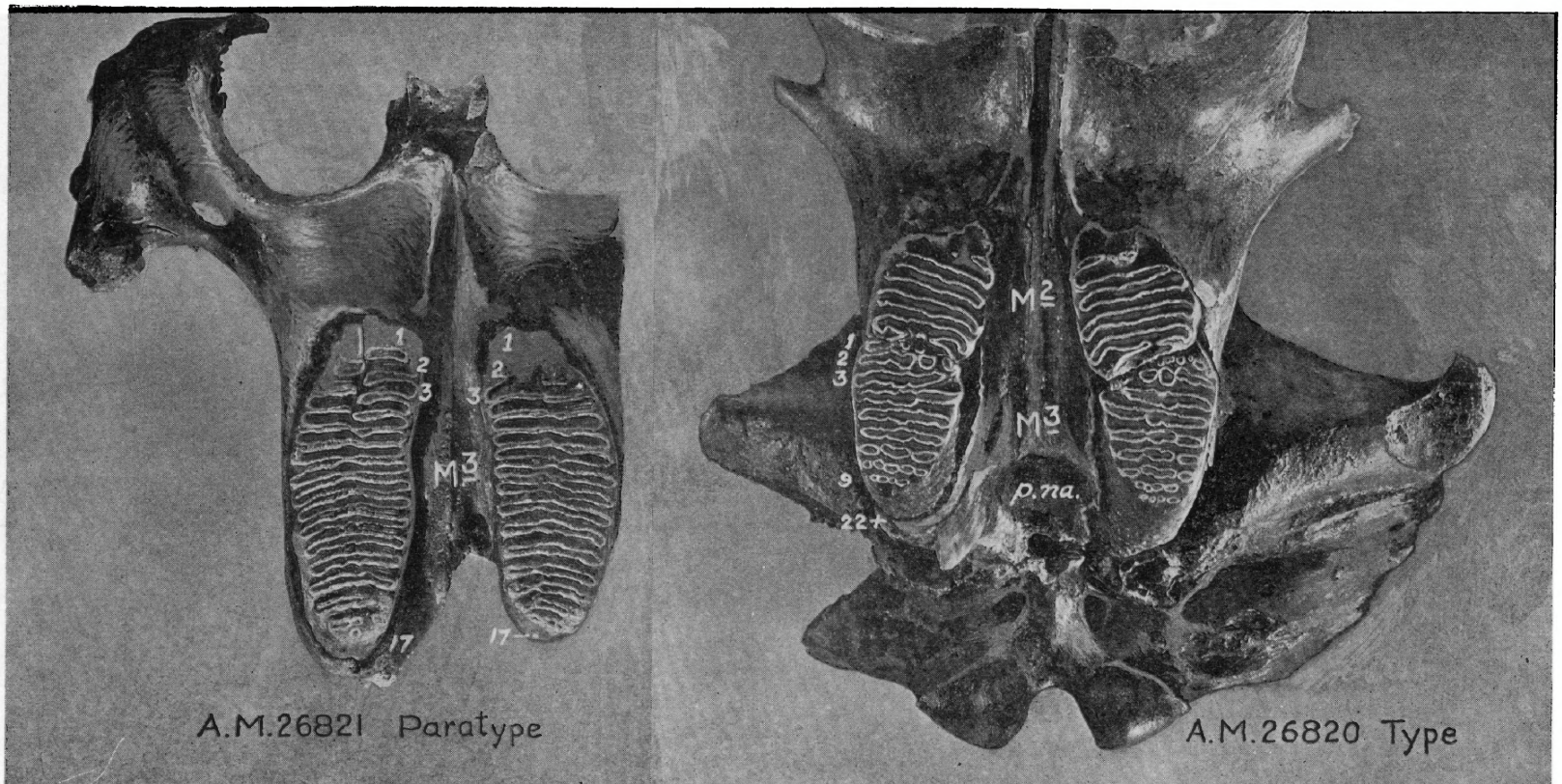

Fig. 3. Type (Amer. Mus. 26820) and paratype (Amer. Mus. 26821) in palatal aspect, one-sixth natural size.

(Right) Molar crowns of the middle-aged adult type in which a total of fourteen ridge plates are in use in the closely conjoined M^2 and M^3, which appear to function like a single grinder. (Left) Aged paratype in which the 16–17 plates of the single third superior grinder M^3 are simultaneously in function. Compare figure 2 showing the attrition level of the grinders in the middle-aged adult and aged specimens.

measurements are shown in Table I; the principal skeletal measurements are shown in Table III.

Important as bearing on the geologic age of this deposit are the horn and part of the cranium of a very large bison (perhaps *Bison regius*),

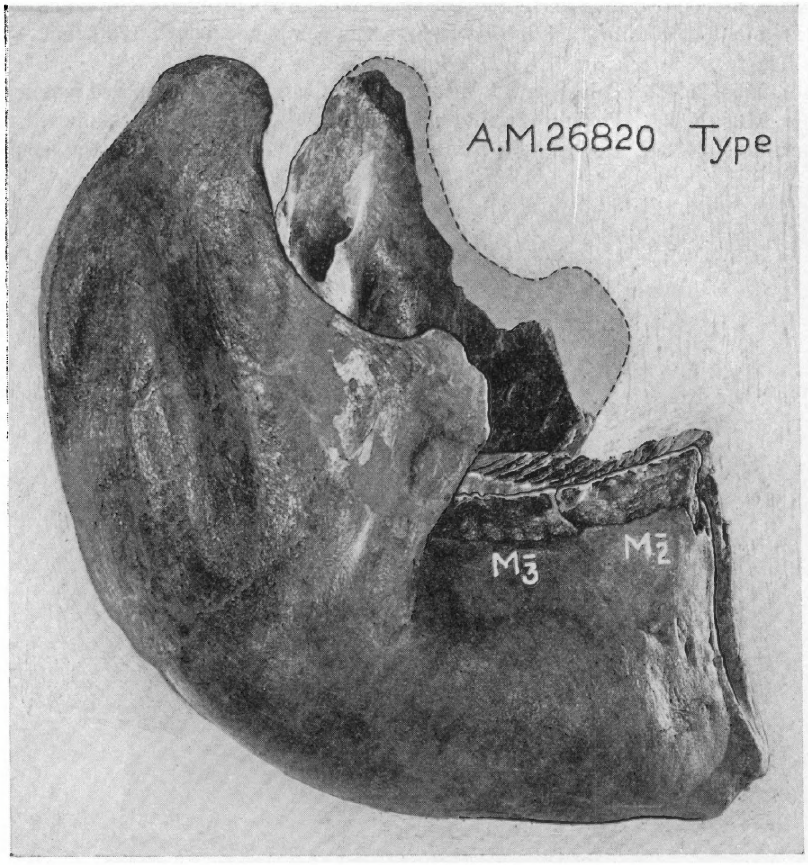

Fig. 4. *Parelephas floridanus*. Mandible of type (Amer. Mus. 26820), exhibiting partly worn M_2, M_3, with strongly abbreviated rostrum.

also part of the cranium of *Castoroides*. Dr. G. G. Simpson, who has recently surveyed the mammalian deposits of Florida with the aid of Mr. Herman Gunter, considers this deposit as probably of late Pleistocene age.

The chief materials are as follows:

Amer. Mus. 26820. Type. middle-aged male. Skull and jaws (Figs. 1, 2, 3) which may be associated with Amer. Mus. 26820*a*, namely, ribs, l. scapula, l. fibula,

r. ulna, l. radius, two humeri, r. femur, two tibiæ, parts of pelvis, and certain foot bones of the skeleton. Smaller right femur, length 1250 mm. (4 ft., 1¼ in.). Smaller right humerus, length 1100 mm. (3 ft., 7¼ in.).

Amer. Mus. 26821. Paratype. Palate and jaws of an old male individual, third superior and inferior molars only, which may be associated with Amer. Mus. 26821*a*. Right side of cranium (Figs. 1, 2, 3) , palate, lower jaw, very large tusk, also associated large vertebræ (26833*b* in measurements below). Also larger left femur (1393 mm.). Larger left humerus complete, length 1200 mm. (3 ft., 11¼ in.).

Amer. Mus. 26822. Palate with r.M^3 and l.M^3, of smaller size, supposed female.

Amer. Mus. 26823. Portion of right palate, with r.M^3, of larger size, supposed male.

Amer. Mus. 26824. Half of right palate, with r.M^3, of small size, supposed female.

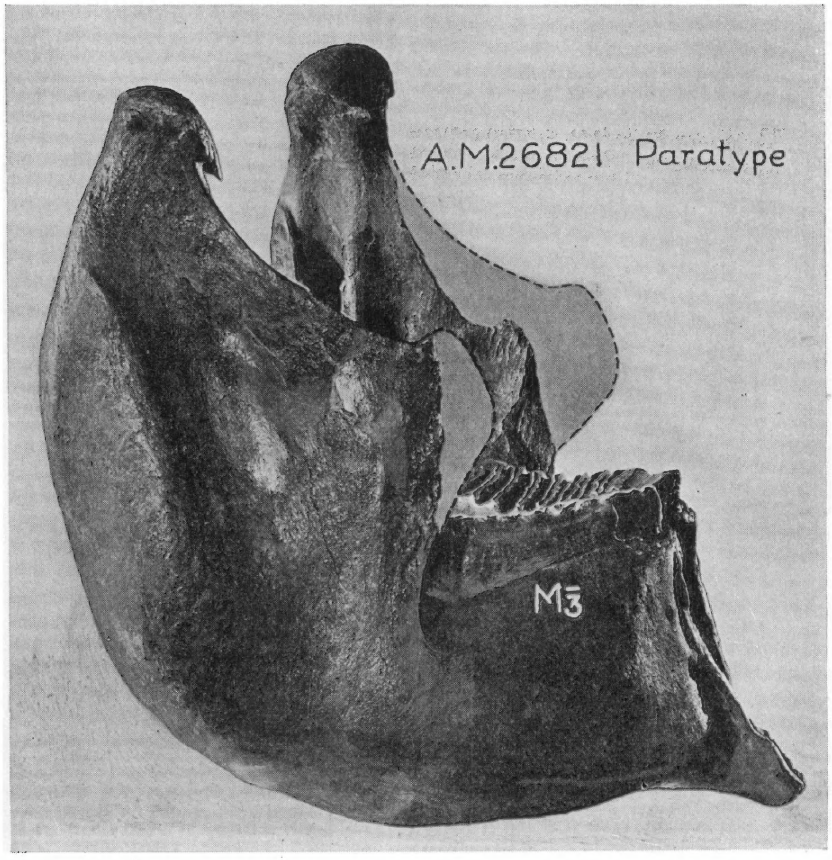

Fig. 5. *Parelephas floridanus*. Deeply depressed aged mandible of paratype (Amer. Mus. 26821), exhibiting M_3 *in situ*, with prominent rostrum.

Observe the relatively greater depression of the lower border of this mandible below the level of the condyle, a bathycephalic adaptation.

Amer. Mus. 26825. Third left upper, l.M^3, and left lower grinder, l.M_3, complete, broad plated, of largest size, supposed male.

Amer. Mus. 26826. Right lower grinder, r.M_3, incomplete, middle-sized, supposed male.

Amer. Mus. 26833 *a, b, c, d, e, f.* Five vertebral series, scattered. See description and Table II on page 13.

Comparative Cranial Measurements of *P. floridanus* and *P. jeffersonii*

As shown in Table III and figure 2 and figure 8, the crania and jaws of *P. floridanus* greatly exceed in size and in massiveness the aged type cranium of *P. jeffersonii*. The ratio of increase in size in the jaw across the premaxillaries is about 10 per cent. The estimated bathycephalic

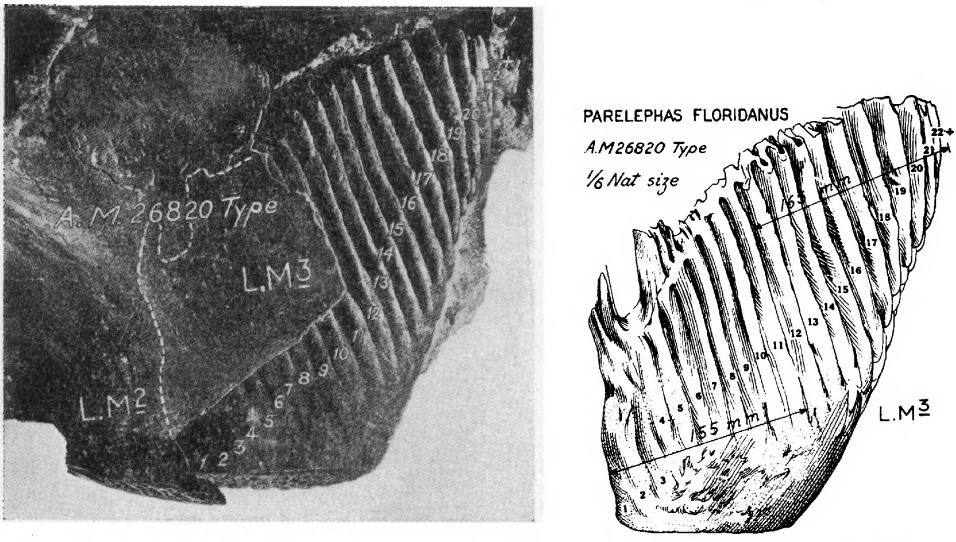

Fig. 6. (Left) Detailed photograph and (right) study of the left second, l.M^2, and third, l.M^3, superior grinders of the type (Amer. Mus. 26820) exhibiting a total of 22+ ridge plates in l.M^3, one-sixth natural size.

Compare figure 2, *A*. (Right) Third left superior molar of type indicating the true method of measuring the *length* of a true superior molar crown, namely, eleven ridge plates on the lower level = 155 mm.; eleven ridge plates on the upper level = 165 mm.; the total length of this third superior molar, accordingly, is 320 mm.

measurement from the summit of the occiput to the occlusal surface of the grinding teeth is 1000 mm. *e.* as compared with 880 mm. in *P. jeffersonii*. The brachycephalic measurement from the occipital condyle to the anterior rim of the orbit is 770 mm. *e.* as compared with 720 mm. in *P. jeffersonii*. It thus appears that *P. floridanus* is much more bathycephalic than the relatively primitive *P. washingtonii*.

Increasing *bathycephaly* is also indicated in the mandible by comparison of the type jaw (Fig. 4) adult bull of middle age, exhibiting the partly worn M_2 and M_3, with strongly abbreviated rostrum. Much deeper or more bathycephalic is the aged paratype jaw (Amer. Mus. 26821, Fig. 5) retaining only the much worn third inferior molar, M_3.

Dentition of Seven Incomplete Cranial and Mandibular Specimens. Table I

The true method of measuring third superior molars, M^3, is shown in figure 6 (right) in connection with the actual enumeration of the ridge plates (left).

Measured in this way the very large male third superior molars, M^3, of the type and paratype are as follows:

Type: M^3		
	Length	=320 mm.
	Maximum breadth	= 88
	Maximum height	=235
Paratype: M^3		
	Length	=320+
	Breadth	= 99
	Height	=215+

In contrast, the smaller female superior molars of Amer. Mus. 26822 measure:

Length	=278+ mm.
Breadth	=106
Height	=184+

The third inferior molars, M_3, measure:

Type: M_3		
	Length	=290
	Breadth	= 79
	Height	=180
Paratype: M_3		
	Length	=290
	Breadth	= 92
	Height	=180

Table I also shows the total number of ridge plates in M^3, 22+; in M_3, 21+ - 22. In ridge plate count of type and paratype taken along the central line of crown, 7½ ridge plates in 10 cm.; in smaller males and females, 6½ ridge plates in 10 cm. Inferior ridge plate count, M_3, 6½ ridge plates in 10 cm. in unworn type; 5½ in worn paratype.

The *specific constancy* of these measurements establish beyond question the clear separation of *P. floridanus* from the more primitive *P.*

TABLE I

PRINCIPAL DENTAL MEASUREMENTS OF SEVEN INDIVIDUALS

Parelephas floridanus and *P. jeffersonii*

Measured as in diagrams, Figs. 6, 7

	Parelephas jeffersonii A. M. 9950 Type Skeleton	*Parelephas floridanus* A. M. 26820 Type Male—middle-aged Skull	*P. floridanus* A. M. 26821 Paratype Male—aged. Skull.	*P. floridanus* A. M. 26822 ? Female. R. & L. M^3	*P. floridanus* A. M. 26823 ? Large male. R. M^3	*P. floridanus* A. M. 26824 ?Female. R. M^3	*P. floridanus* A. M. 26825 ?Large male. L. M_3	*P. floridanus* A. M. 26826 Large male. L. M^3, R. M_3	*P. floridanus* A. M. 26833 Skel. parts.
Third superior molar—length	203+	320	320±	278±				288	
max. breadth. 9th	108+	88	99	106				91	
max. height. 15th	Worn	235	215±	184+				195	
Third inferior molar—length	208+	290	290±		312	273	355	333	
max. breadth. 7th to 9th	86+	79	92		92	99	90	83	
max. height. 12th to 15th	168	180±	180±		200	192	165	170	
Total number of ridge plates. M^3		22	17e	22e	19+	18+		20+	
Total number of ridge plates. M_3		21+	12e				22	21	
Crown:—number ridge plates in 10 cm. M^3		7½	7½	6½	6½	7		6½	
number ridge plates in 10 cm. M_3		6½	5½				6	6½	
Tusk—exposed length, outside curve (free portion)	3020	1165	1960						
total length	3500		2320±						
max. diameter, transverse	168 R.	180	183						
max. circumference	505	545	520 L.+						

columbi on the one hand and from the more progressive *P. jeffersonii* and *P. progressus* on the other, as shown in the following comparative ridge plate formulæ:

Parelephas progressus, M 3 $\frac{30}{26}$
Parelephas jeffersonii, M 3 $\frac{25}{24}$
Parelephas floridanus, M 3 $\frac{22+}{21-22}$
Parelephas columbi, M 3 $\frac{19}{16+}$

Incisive Tusks. The tusks are distinguished for their massiveness (Figs. 1, 2, 9), the maximum transverse diameter of the type being 180

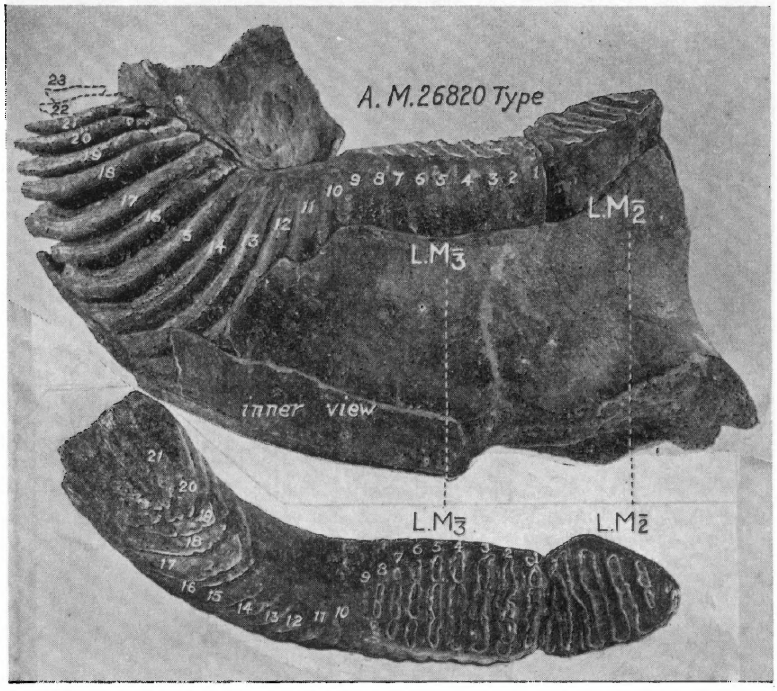

Fig. 7. *Parelephas floridanus.* Type, internal and crown views of second and third inferior grinding teeth, l.M_2, l.M_3; l.M_3 exhibits 21–?23 ridge plates. One-sixth natural size.

mm., of the paratype 183 mm.; and the circumference, 545 mm., as compared with *P. jeffersonii* of which the maximum diameter is 168 mm., and the circumference 505 mm. As newly restored (Fig. 8), the type tusk (Amer. Mus. 26820) is much longer than shown in figures 1, 2. The paratype tusk (Amer. Mus. 26821) is correctly represented in figure 2; it is apparently full-grown, judging from the extreme wear of M^3. It measures 2320 mm. as compared with 3500 mm. of the type of *P. jeffersonii* (Amer. Mus. 9950).

Fig. 8. Reconstructed cranium and tusks of the type (Amer. Mus. 26820) of *Parelephas floridanus*, as now exhibited in the Hall of the Age of Man.

In this reconstruction, made under the direction of the author and Mr. Charles Lang, the height of the orbit is determined from the paratype (Amer. Mus. 26821); the frontal profile and occipital region are determined partly from the cranium (Amer. Mus. Cope Coll. 8681) of the more primitive *P. washingtonii*, partly from the type (Amer. Mus. 9950) of *P. jeffersonii*, and partly from the giant *P. jeffersonii* in the Nebraska Museum known as the "Franklin County Mammoth" (Neb. Mus. 1–4–15).

Comparative Skeletal Measurements of *P. floridanus* and *P. jeffersonii*

As shown in Table III, the skeleton and limbs of the type middle-aged bull of *P. floridanus* (Amer. Mus. 26820) exactly equal or slightly exceed in size the very aged bull type of *P. jeffersonii* (Amer. Mus. 9950) measured as shown in figure 9. This statement is proved by the following comparisons:

	Parelephas jeffersonii, type. Aged bull. Amer. Mus. 9950	*P. floridanus*, type. Adult bull. Amer. Mus. 26820	*P. floridanus*, paratype. Aged bull. Amer. Mus. 26821
Humerus, articular length, Right	1120	1140	
Humerus, articular length, Left	1085+	1143	1185
Femur, articular length, Right	1250±	1230	
Femur, articular length, Left	1255		1393
Tibia, articular length, Right	690	698	
Tibia, articular length, Left	685	685	

The aged bull paratype (Amer. Mus. 26821) of *P. floridanus* (left humerus, 1185 mm.; left femur, 1393 mm.) greatly exceeds in size the aged male type (Amer. Mus. 9950) of *P. jeffersonii*. In fact, the measurements of this femur and humerus somewhat exceed those of the Amherst skeleton of *Parelephas columbi* (Amherst Mus. 25–1) and are not far inferior to the measurements of the giant *A. imperator maibeni* of the Nebraska Museum (Neb. Mus. 5–9–22). A few comparative measurements are as follows:

Right humerus of *A. imperator maibeni* of the Nebraska Museum	1230 mm.
Left humerus of aged male *P. floridanus* paratype	1185
Right humerus of type younger male *P. floridanus*	1140
Right humerus of *P. jeffersonii* aged bull	1120
Right humerus of *P. columbi*, Amherst skeleton	1028

These comparative measurements are very important because the humerus always forms the most reliable method of estimating the shoulder height of any member of the elephant family.

Five Vertebral Series Probably Associated with Five of the Crania or Jaws. Compare Table II

Several scattered series of vertebræ have been reassembled according to size which represent five, or at the most six, individuals, numbered as follows: Amer. Mus. 26833*a*, 26833*b*, 26833*c*, 26833*d*, 26833*e*, 26833*f*. Of these, one vertebral series (Amer. Mus. 26833*a*) may with some probability be associated with the type (Amer. Mus. 26820) cranium

and jaws; while another series (Amer. Mus. 26833*b*) may be associated with the paratype cranium and jaws (Amer. Mus. 26821).

In the assembling by order of size these vertebral series present the

TABLE II

TRANSVERSE DIAMETERS OF VERTEBRAL CENTRA

	Parelephas jeffersonii Amer. Mus. 9950	*Parelephas floridanus* Amer. Mus. 26833*c*	*Parelephas floridanus* Amer. Mus. 26833*a*	*Parelephas floridanus* Amer. Mus. 26833*e*	*Parelephas floridanus* Amer. Mus. 26833*b*	*Parelephas floridanus* Amer. Mus. 26833*d*
Cervical 1	220	225				
2	152					
3	155					
4	153					
5	147		171		199	
6	145		163		197	
7		148				
Dorsal 1						
2						
3	121					
4	132					
5	135				130	
6	133					150
7	124					
8	123					
9	118					
10	116	117				
11	114		117			
12	122	114			127	
13	125		129			
14	122	127				
15	123		135			
16	126	120				
17	126			127	136	
18	125	115	119	126		137
19	127		121			136
Lumbar 1	142	154	127			144
2	150		143			
3	153				175	
4	161					
Sacrals 1–4, length	377	320*e*			320*e*	

following vertical and transverse measurements of the centra:

Amer. Mus. 26833*c*, of the smallest measurement,

Cervicals, including C1 (*tr.* 225×*ver.* 122), C2, C3, C7 (*tr.* 148×*ver.* 150).

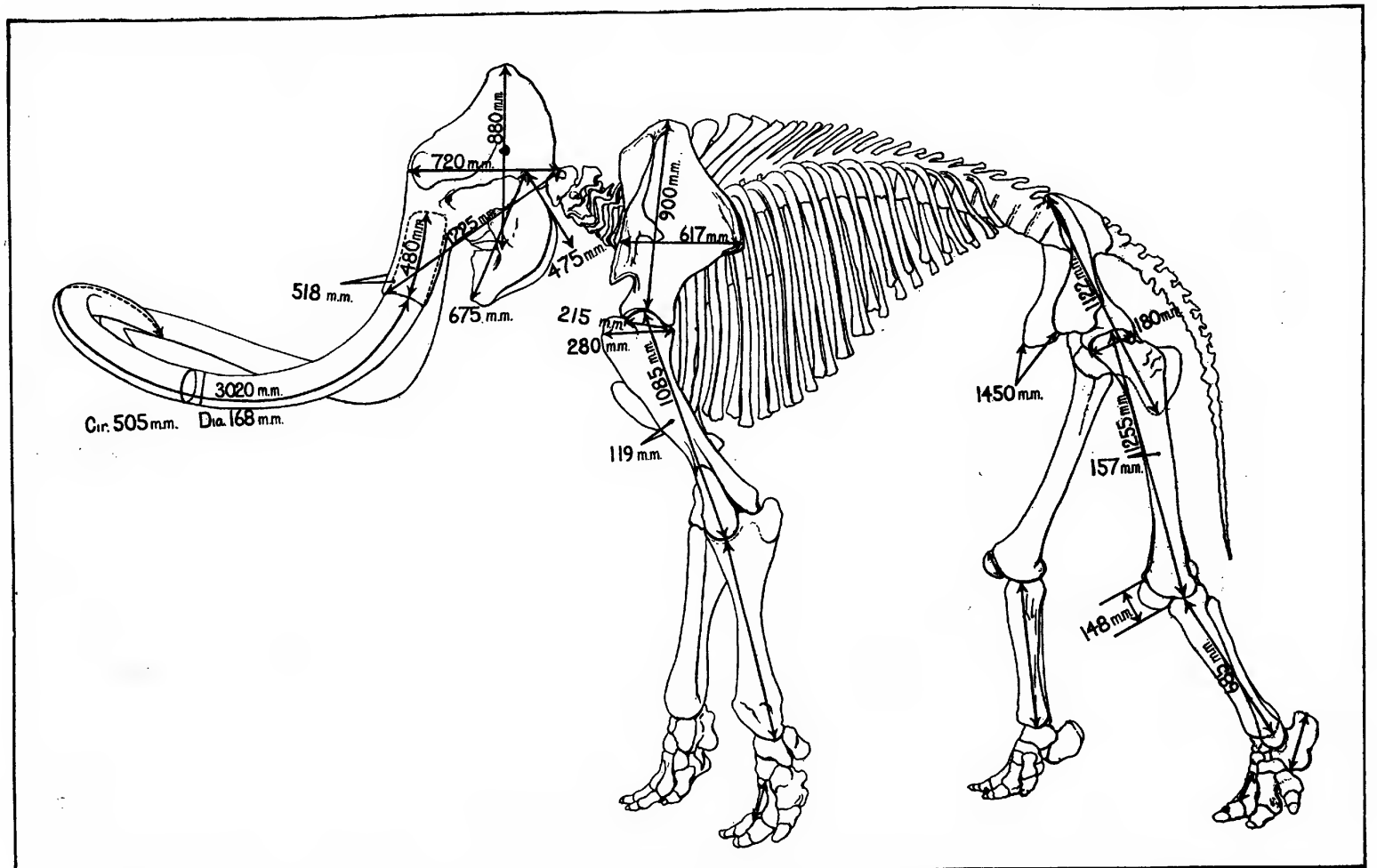

Fig. 9. Standard methods of skeletal measurement in *Parelephas* and other extinct and living Proboscideans, illustrated on the type skeleton (Amer. Mus. 9950) of *Parelephas jeffersonii* in the American Museum collection, Hall of the Age of Man.

This method is uniform with that adopted throughout the Proboscidea Monograph now in preparation by the author.

Dorsals, including D6, D10 (*tr.* 117×*ver.* 123), D12 (*tr.* 114×*ver.* 117), D14 (*tr.* 127×*ver.* 113), D16 (*tr.* 120×*ver.* 110), D18 (*tr.* 115×*ver.* 114).
Lumbars, including L1 (*tr.* 154×*ver.* 115), L3, L4.
Sacrals, including sacral 1–4, length 320 mm. *e.*

Amer. Mus. 26833*a*, probably associated with type (Amer. Mus. 26820).
Cervicals, including C1, C5 (*tr.* 171×*ver.* 154), C6 (*tr.* 163×*ver.* 156).
Dorsals, including D1, D11 (*tr.* 117×*ver.* 126), D13 (*tr.* 129×*ver.* 116), D15 (*tr.* 135×*ver.* 118), D18 (*tr.* 119×*ver.* 122), D19 (*tr.* 121×*ver.* 122).
Lumbars, including L1 (*tr.* 127×*ver.* 118), L2 (*tr.* 143×*ver.* 116).

Amer. Mus. 26833*e*, including a few dorsals of larger measurement, namely, D17 (*tr.* 127×*ver.* 128), D18 (*tr.* 126×*ver.* 127), D19.

Amer. Mus. 26833*b*, probably associated with large aged paratype (Amer. Mus. 26821).
Cervicals, including C1, C2, C3, C4, C5 (*tr.* 199×*ver.* 181), C6 (*tr.* 197×*ver.* 182).
Dorsals, D4, D5 (*tr.* 130×*ver.* 156), D6, D7, D8, D9, D11, D12 (*tr.* 127×*ver.* 119), D14, D15, D16, D17 (*tr.* 136×*ver.* 131).
Lumbars, L2, L3, (*tr.* 175×*ver.* 128).
Sacrals 1–4, length 320 mm. +.

Amer. Mus. 26833*d*, including four vertebræ of the largest measurement, namely:
Dorsals, D6 (*tr.* 150×*ver.* 165), D18 (*tr.* 137×*ver.* 135), D19 (*tr.* 136×*ver.* 139).
Lumbars, L1 (*tr.* 144×*ver.* 136).

Comparison with *Parelephas jeffersonii* type (Amer. Mus. 9950); transverse measurements of centra. See Table II.
C1 (*tr.* 220), C2 (*tr.* 152), C3 (*tr.* 155), C4 (*tr.* 153), C5 (*tr.* 147), C6 (*tr.* 145), C7.
Dorsals, D1, D2, D3 (*tr.* 121), D4 (*tr.* 132), D5 (*tr.* 135), D6 (*tr.* 133), D7 (*tr.* 124), D8 (*tr.* 123), D9 (*tr.* 118), D10 (*tr.* 116), D11 (*tr.* 114), D12 (*tr.* 122), D13 (*tr.* 125), D14 (*tr.* 122), D15 (*tr.* 123), D16 (*tr.* 126), D17 (*tr.* 126), D18 (*tr.* 125), D19 (*tr.* 127).
Lumbars, L1 (*tr.* 142), L2 (*tr.* 150), L3 (*tr.* 153), L4 (*tr.* 161).
Sacrals 1–4, length 377 mm.

The transverse measurements of the type (Amer. Mus. 9950) of *P. jeffersonii* in general agree most closely with the smallest *P. floridanus* (Amer. Mus. 26833*c*), omitting C7, D1 and D2 which could not be obtained. In the linear measurement of the sacrals 1–4, *P. jeffersonii* (377 mm.) exceeds the smaller *P. floridanus* (320 mm. *e*). Very significant are the steadily increasing transverse diameters in the posterior dorso-lumbar vertebræ of *P. jeffersonii* D3 (*tr.* 121) Lumbar 4 (*tr.* 161). The anterior dorsals are wide transversely; in the middle region of the back the vertebræ become quite narrow, and near the lumbar series they become wider; this rule was also found to hold with *Elephas indicus*.

Whereas, as appears in Table II, the transverse measurements of *P. jeffersonii* are fairly constant, similar transverse measurements of *P. floridanus* display great irregularity, owing to irregular disposition or distortion and to possible errors in our assemblage.

TABLE III

COMPARATIVE SKELETAL MEASUREMENTS OF TWO INDIVIDUALS OF *Parelephas floridanus* COMPARED WITH *P. jeffersonii*

	Parelephas jeffersonii Type A. M. 9950 Skeleton	*Parelephas floridanus* Type A. M. 26820 Skull and ref. limb-bones Male—mid. aged.	*P. floridanus* Paratype. A. M. 26821 Skull and ref. limb-bones. Male—aged.
Cranium—occip. condyle to mid-symphysis	980	1102	
occip. condyle to ant. orbit	720	770*e*	
trans. premaxillary	518	575	
bathycephaly	880	1000*e*	
Jaw—condyle to mid-symphysis	675	725	750
height or depth, condyle to lower border	475	535	560
Scapula—height, supra-scap. border to glenoid. R	905		
ant.-post. glenoid borders. R.	220		
height, supra-scap. border to glenoid. L.	900		
ant.-post. glenoid borders. L.	215+	230	
ant.-post. diameter through metacromion. R.	622		
ant.-post. diameter through metacromion. L.	617		
Humerus—articular length. R.	1120	1140	
mid-diameter, ant.-post. R.	109+	130	
ant.-post. diameter of head. R.	279	255	
articular length. L.	1085+	1143	1185
mid-diameter, ant.-post. L.	119	120	128
ant.-post. diameter of head. L.	280	260	267
Radius—articular length	Rest.		
Ulna—articular length. R.	Rest.	750±	
articular length. L.	Rest.		
Manus—metacarpal III—articular length. R.	Rest.		
metacarpal III—articular length. L.	Rest.	208	
Pelvis—length of os innominatum	1122		
transverse diameter of ilia	1450		
max. diameter of acetabulum	180	183	
Femur—articular length. R.	1250±	1230	
mid-diameter, transverse. R.	155	144	
articular length. L.	1255		1393
mid-diameter, transverse. L.	157		154
Patella—diameter. R.	148		
diameter. L.	Rest.	151	160
Tibia—articular length. R.	690	698	
articular length. L.	685	685	
Calcaneum—length. R.	Rest.	231	
breadth. R.	Rest.	177	
length. L.	Rest.	232	
breadth. L.	Rest.	178	
Metatarsal III—articular length. R.	Rest.	155	
articular length. L.	Rest.		

Conclusions

The giant *Parelephas floridanus* is a most welcome new stage or ascending mutation in the long history of *Parelephas* migration which may now be traced back to the Lower Pleistocene or possibly the Upper Pliocene and western Europe.

It is not improbable that certain of the specimens found in Florida which hitherto have been referred to *Parelephas columbi* with its limited ridge formula, M 3 $\frac{\dot{1}\dot{9}}{\dot{1}\dot{8}+}$, actually belong nearer to *P. floridanus* stage with its more progressive ridge formula, M 3 $\frac{22+}{21+}$. The three specimens in the National Museum, N. M. 11810, an r.M^3 exhibiting +19 ridge plates; N. M. 11808, a fractured third superior molar exhibiting +13 ridge plates; and N. M. 11806, an l.M^2 exhibiting +12 ridge plates, appear to be nearer *Parelephas floridanus* rather than to the typical *P. columbi*, to which they were first referred by Osborn.

R. M.^{3}			
	Length	+258	mm.
(N. M. 11810)	Width, maximum	90	mm.
	Height at 13th r. p.	167+	mm.
	Height at 17th r. p.	159	mm.
Two to three anterior plates missing.	Number of ridge plates	+19	
	Ridge plates per 10 cm.	7	
R. M.^{3}			
	Length	+200	mm.
(N. M. 11808)	Width at ?8th r. p.	89	mm.
	Height of ?13th r. p.	195	mm.
Seven to eight anterior ridge plates missing.	Number of ridge plates	+13	
	Ridge plates per 10 cm.	7	

In the typical *Parelephas floridanus* the eight posterior ridge crest foldings collectively measure 1309 mm. in height. In N. M. 11808 the corresponding eight ridge crests (13–20) measure 1196 mm. In the neotype of *Parelephas columbi* the ridge crests (12–19) measure 1117 mm. Thus N. M. 11808 and N. M. 11810 are intermediate in the collective height of their eight posterior ridge crests between the paratype of *Parelephas floridanus* and the neotype of *Parelephas columbi*. In brief, M^3 is much taller or more hypsodont in *P. floridanus* than in *P. columbi;* the National Museum specimens are intermediate but tend toward *P. floridanus*.